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# **FINAL UTILITY REPORT**

**910 28<sup>TH</sup> STREET**

**AT**

**910 28<sup>TH</sup> STREET**

**BOULDER, COLORADO 80303**

**FOR**

**BRICKSTONE PARTNERS**

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JULY 25, 2011

July 25, 2011

Mr. Jeff Arthur, P.E., Engineering Review Manager  
City of Boulder - Engineering Development Review  
1739 Broadway  
Boulder, CO 80306

RE: 910 28th Street Development – 910 28th Street, Boulder, Colorado  
Final Utility Report  
JVA Job No. 1852c

Dear Jeff:

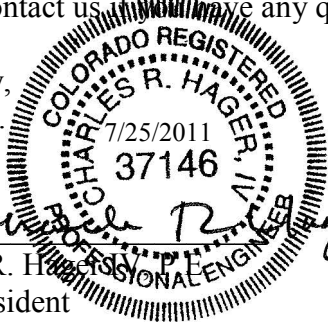
The following Final Utility Report and attached utility drawing have been prepared for the above referenced project. The utility report has been produced in accordance with the “City of Boulder Design and Construction Standards,” 2000 Edition, and comply with provisions thereof.

It is our understanding that the information provided herein meets all requirements of the City of Boulder’s drainage criteria.

Please contact us if you have any questions regarding this submission.

Sincerely,  
JVA, Inc.

  
Charlie R. Hager, P.E.  
Vice President



ENGINEER'S STATEMENT:

"I hereby certify that this report and the enclosed plan for the final utility design of the High Mar Redevelopment project were prepared in accordance with the provisions of the City of Boulder Design and Construction Standards for the Responsible Parties thereof. I understand that the City of Boulder does not and shall not assume liability for drainage facilities designed by others."

Signature:



*Charles R. Hager*  
Charles R. Hager  
Registered Professional Engineer  
State of Colorado No. 37146

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**AT**

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**BOULDER, COLORADO 80305**

**FOR THE**

**BRICKSTONE PARTNERS**

**2990 17<sup>TH</sup> STREET, SUITE 702**

**DENVER, CO 80206**

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**JVA, Inc.**

**Consulting Engineers**

1319 Spruce Street

Boulder, CO 80302

phone: 303-444-1951

fax: 303-444-1957

JVA Project No. 1852c

July 25, 2011

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# FINAL UTILITY REPORT

## INTRODUCTION

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### GENERAL LOCATION AND DESCRIPTION

Brickstone Development proposes to redevelop the existing site to create a multi-family complex at 910 28<sup>th</sup> Street in the City of Boulder. The 0.39-acre site is located in the southwest ¼ of Section 32, Township 1 North, and Range 70 West of the 6<sup>th</sup> P.M., City of Boulder, County of Boulder, State of Colorado.

### PROPOSED PROJECT

The proposed project will consist of a 19-unit student residential building and associated parking areas and amenities. The utility work will consist of new storm sewer, sanitary sewer, potable water, and dry utilities such as gas, electric and others. Please refer to the Utility Plan prepared by JVA, Inc..

## UTILITIES

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### WATER SYSTEM

There is an existing 8" main water main line that runs along 28th Street that is part of the City's public water system. The project is proposing to connect to the existing 8" main in 28th Street and install an 8" water main that will run to the east along the project's private drive.

The multi-unit residential building will connect to the water main in the project's drive. Per the project's mechanical engineer the building will require a 2" type "K" copper domestic service and a 6" DIP fire service. Final domestic service demands will be determined by the mechanical engineer and included with the building permit submittal. One fire hydrant on the west side of site and one on the west side of site will be installed off of the proposed water main in the drive.

Currently, there is an existing 1" water meter at the north west corner of the property off of 28th Street. This water meter will be utilized for the site's irrigation system.

The proposed 11,285 sf building will be fully sprinklered. Based on the square footage of the building, the construction type, and discussion with the Boulder Fire Marshal, the site will require two fire hydrants as shown on the plans. Currently there are no existing fire hydrants onsite.

The fire hydrant demand has been based on square footage of residential space and the number of residential units per building. Per the International Building Code, buildings to be sprinklered may receive a 75% reduction in the required fire flow – a number determined using table B105.1 of that code. The minimum required fire flow for the development is 2,750 GPM.

Utilizing city pressure node 301 data, it has been assumed a water pressure of 107 psi at the 8” main water line connection in 28th Street. This water pressure will provide adequate water pressure for the needs of this multi-family complex.

#### SANITARY SEWER SYSTEM

Currently an existing 8” sanitary sewer main runs west to east from the intersection of 28th Street and East Aurora Avenue right-of-way. It is proposed to install a private 6” service from the main in East Aurora Avenue and run north in a 10.0' recorded Sanitary easement to provide service to the building.

#### STORM SEWER SYSTEM

Runoff from the proposed drive will flow towards the east to replicate existing conditions. Runoff from the proposed building will be collected and piped towards the onsite water quality features. See the drainage report and plan prepared by JVA Inc.

#### GROUNDWATER SYSTEM

According to the Geotechnical report, groundwater was encountered at a depth of approximately 6 to 10 feet below existing grades. A foundation drain is proposed for this site.

#### DRY UTILITY SYSTEM

All dry utilities such as gas, telecom, overhead electric and others will be coordinated by the owner and the utility companies.

#### CONCLUSIONS

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The utilities for this High Mar Redevelopment project have been analyzed to meet the City of Boulder standards. The fire hydrant and access plan has been discussed with the Boulder Fire Marshal.

## REFERENCES

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1. “City of Boulder Design and Construction Standards,” 2000 Edition.



## **APPENDIX A – SITE MAP**

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**910 28TH STREET**

AT

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BOULDER, COLORADO 80305



**VICINITY MAP**

NOT TO SCALE

**910 28TH STREET**  
BOULDER, CO 80303

2011 Shears Adkins Rockmore

Date: 07.25.2011

Project Name:  
**910 28TH STREET**  
Issued For / Phase:  
**Building Permit & Tech Docs**

Drawn: MC  
Revisions:

Sheet Name:  
**UTILITY PLAN**

Sheet Number:  
**C2.0**

